Notice of Allowability	Application No.	Applicant(s)	
	10/551,967	LI ET AL.	
	Examiner	Art Unit	
	Shaima Q. Aminzay	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *7/6/2007*.

2. ☒ The allowed claim(s) is/are *1,2,6-10,13,14 and 18-20*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☒ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 6, 2007 has been entered.

Allowable Subject Matter

1. Claims 1-2, 6-10, 13-14, and 18-20 are allowed.

Reasons for Allowance

2. The following is an examiner's statement of reason for allowance:

The prior art specifically Belcea (Belcea, U.S. Patent No. 7,079,509) failed to render obviousness and failed to anticipate the following limitations:

"A method for supporting P2P (Peer to Peer) communication between two user equipments in TDD CDMA systems, performed by user equipment, comprising: receiving downlink signals transferred via a control channel by a network system;

acquiring timeslot allocation information according to the received downlink signals; acquiring spreading code allocation information of other active user equipments allocated in the specific downlink timeslot associated with a direct link used by the user equipments, according to the received downlink signals; reducing the interference caused by downlink signals transferred to the other user equipments during P2P communication according to the acquired timeslot allocation information and spreading code allocation information, wherein the interference reduction includes executing at least one of the methods Multi-User Detection (MUD) and Joint Detection (JD), and wherein at least one of the methods utilizes the spreading code information being used by other user equipments in the downlink timeslot to reduce interference; establishing downlink synchronization with the network system and keeping downlink synchronization with the network system by tracking a pilot channel; in the downlink timeslot, when the user equipments transmit signals via the direct link, the steps taken by the user equipment includes: (i) during establishing a direct link, setting a time of transmitting signals to the other user equipment in the downlink timeslot, according to a received time of transmitted signals by network system; (ii) transmitting test signals to the other user equipment at the set time in said downlink timeslot; (iii) receiving a feedback signal from the other user equipment, which is the time difference obtained by comparing the time at which the other user equipment receives the test signals and the received time at which the network system transmits signals in the other user equipment, after the other user equipment receives the test signals; (iv) setting a time advance for transmitting signals to the other user equipment according to the feedback signal; and (v)

adjusting the time at which the user equipment transmits signals to the other user equipment according to time advance, in order that the downlink signals from the network system, which are received by the other user equipment, are synchronized with the signals of the direct link from the user equipment" as disclosed in independent claim 1.

"A user equipment for supporting P2P (Peer to Peer) communication in TDD CDMA systems, comprising: a signal transceiver, for receiving and transmitting radio signals; a timeslot allocation information acquiring means for acquiring a timeslot allocation information according to information transferred via a downlink control channel; a spreading code allocation information acquiring means for acquiring spreading code allocation information of other active user equipments in a specific downlink timeslot which is used when a UE is receiving signals via the direct link between the UE and the other user equipment, according to the information transferred via the downlink control channel; and a interference reducing means for reducing the interference caused by downlink signals transmitted from the network system to other user equipments during P2P communication according to the acquired timeslot allocation information and spreading code allocation information, wherein the interference reducing means executes at least one of the methods Multi-User Detection (MUD) and Joint Detection (JD) to reduce interference, and wherein one of the methods reduce interference by using the spreading code information being used by other user equipments in the downlink timeslot; a synchronization means, for establishing downlink synchronization with the

network system at a cell search phase, and maintaining downlink synchronization with the network system by tracking a pilot channel; a transmitting time setting means, for setting a time for transmitting signals to the other user equipment in the downlink timeslot according to a time for receiving the transmitting signals from the network system when establishing the direct link; a test signals transmitting means, for transmitting test signals to the other user equipment at the set time in the downlink timeslot; a feedback signal receiving means, for receiving feedback signals from the other user equipment, which is a time difference obtained by comparing the time for receiving test signals and the time for receiving the transmitting signals from the network system in the other user equipment, after the other user equipment receives the test signals; a time advance setting means for setting a time advance for transmitting signals to the other user equipment; and a transmitting time adjusting means for adjusting, based on said feedback signals, the transmitting time at which the user equipment transmits signals to the other user equipment according to the time advance, so that the downlink signals transferred via the network system, which are received by the other user equipment, are synchronized with the signals transferred via the direct link from the user equipment" as disclosed in independent claim 13.

For these reasons, independent claims 1, and 13 are allowed. Claims 2, 6-10, 14, and 18-20 are dependents of independent claims 1, and 13 are allowed for the same reasons set forth in independent claims 1, and 13.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

Conclusion

The prior art made of record considered pertinent to applicant's disclosure, see PTO-892 form.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shaima Q. Aminzay whose telephone number is 571-272-7874. The examiner can normally be reached on 7:00 AM -4:00 PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew D. Anderson can be reached on 571-272-4177. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MATTHEW ANDERSON
SUPERVISORY PATENT EXAMINER

Shaima Q. Aminzay
(Examiner)
August 13, 2007